

TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
121027-087

In Re Application Of: Yoshitaka MISHIMA et al.

JAN 06 2005

PATENT & TRADEMARK OFFICE

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/016,411	December 10, 2001	Catherine Anderson	35684	3761	

Invention:

DISPOSABLE UNDERGARMENT

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on

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Dated: January 4, 2005

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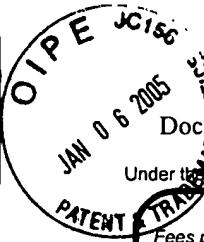
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FEE TRANSMITTAL for FY 2005

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT **(\$)** **\$500.00**

Complete if Known

Application Number	10/016,411
Filing Date	December 10, 2001
First Named Inventor	Yoshitaka MISHIMA et al.
Examiner Name	Catherine Anderson
Art Unit	3761
Attorney Docket No.	121027-087

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fees Paid (\$)
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES

Fee Description

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	\$50.00	= \$0.00	_____	_____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	\$200.00	= \$0.00

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listing under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50	(round up to a whole)	x \$250.00	= \$0.00

4. OTHER FEE(S)

Non-English specification, \$130 fee (no small entity discount)

Other (e.g. late filing surcharge): Appeal Brief \$500.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent)	32,816	Telephone	734-995-3110
Name (Print/Type)	Michael S. Gzybowski		Date	January 4, 2005	

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AF/JFW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group
Art Unit: 3761

Attorney
Docket No.: 121027-087

Applicant: Yoshitaka MISHIMA et al.

Invention: DISPOSABLE UNDERGARMENT

Serial No.: 10/016,411

Filed: December 10, 2001

Examiner: Catherine Anderson

Certificate Under 37 CFR 1.8(a)

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on January 4, 2005

Michael S. Gzybowski

BRIEF ON APPEAL

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to Appellants' Notice of Appeal filed November 4, 2004 in connection with the above-identified application, Appellants submit the present Brief on Appeal.

REAL PARTY IN INTEREST

Appellants assigned this application to Uni-Charm Corporation. in an assignment which was

executed by the inventors on March 22, 2002 and April 4, 2002, and recorded in the United States Patent and Trademark Office on April 24, 2002 at Reel No. 0122844 and Frame No. 0218.

RELATED APPEALS AND INTERFERENCES

There are no related cases involved in any appeal procedures or Interferences.

STATUS OF CLAIMS

Claims 1-7 are pending in this application. Claims 1-5 and 7 stand under Final Rejection, from which rejection of claims 1-5 and 7 this appeal is taken. Claim 6 stands objected to as being dependent upon a rejected base claim. No other claim(s) is/are pending.

STATUS OF AMENDMENTS

An Amendment After Final was filed on August 4, 2004 in which claim 6 was rewritten in independent form. Appellants did not receive a response to their Amendment After Final. It is requested that that Amendment After Final be entered by the Board of Appeals and Interferences when this Appeal is before the Board.

SUMMARY OF INVENTION

The present invention is directed to a disposable undergarment that comprises a liquid-pervious topsheet 4, a liquid-impervious base sheet 5 and a liquid-absorbent panel 6 disposed between these topsheet 4 and base sheet 5 (See page 7, lines 4-6 of Appellants' specification).

As discussed on page 6, line 20 through page 7, line 3 of Appellants' specification, side of the diaper referred to herein as the skin-facing side 2 is the side that is intended to be in contact with the wearer's skin and the side of the diaper referred to herein as a non-skin-facing side 3 is the side that is intended to be out of contact with the wearer's skin when the diaper is worn.

A skin-facing sheet 7 that is formed of a fibrous nonwoven fabric and which is elastically stretchable in the transverse direction as well as in the longitudinal direction is attached under extension in the longitudinal direction to the skin-facing side 2 of the diaper as discussed at page 8, lines 9-13 of Appellants' specification.

As discussed at page 8, lines 13-19 of Appellants' specification, the skin-facing sheet 7 has fixed regions 7a defined along the longitudinally opposite end regions 1a and a longitudinally middle free region 7b extending between the fixed regions 7a. The longitudinally middle region 7b covers the panel 6 indirectly, i.e., with the topsheet 4 lying therebetween. The fixed regions 7a of the skin-facing sheet 7 are joined to the topsheet 4.

As shown in Fig. 4, the longitudinally middle region 7b extends between the fixed regions 7a which are normally biased to be spaced apart upward from the liquid-absorbent panel 6 as the

undergarment is curved in a longitudinal direction thereof with the skin-facing side 2 of the liquid-pervious topsheet 4 inside.

As disclosed at page 16, lines 6-9 of Appellants' specification, the skin-facing sheet 7 has the pair of transversely opposite side edge regions 7c intended to define the respective leg-holes and extending on both sides of the middle region 7b.

As shown in Fig. 1 and discussed on page 16, lines 9-11 of Appellants' specification, the middle region 7b of the skin-facing sheet 7 is formed with an opening 8.

As shown in Fig. 1, longitudinally opposite end regions of the liquid-pervious topsheet 4 and the skin-facing sheet 7 are substantially coextensive in a transverse direction.

Also as shown in Figs. 1 and 4, a longitudinal central portion of the skin-facing sheet 7 has a width that is smaller than a width of an underlying central portion of the liquid-pervious topsheet 4 so that transverse opposite outer terminal side edges of the liquid-pervious topsheet 4 and of the skin-facing sheet 7 at the longitudinal central portion are not coextensive with one another in the transverse direction and the transverse opposite outer terminal side edges of the skin-facing sheet 7 at the longitudinal central portion are spaced apart upward and inward from the transverse opposite outer terminal side edges of the liquid-pervious topsheet 4 at the longitudinal central portion as the undergarment is curved in a longitudinal direction thereof with the skin-facing side 7 of the liquid-pervious sheet inside.

As discussed at page 12, line 21 through page 13, line 2 of Appellants' specification, the basis weight of the skin-facing sheet 7 is higher in the peripheral edge portion 7d of the opening 8

than the remaining portion and the tensile stress of the skin-facing sheet 7 also is higher in the peripheral edge portion 7d than the remaining region.

As further discussed at page 12, lines 7-13 of Appellants' specification, the tensile stress of the skin-facing sheet 7 is sufficiently higher in its transversely opposite side edge regions 7c than in its remaining portion, therefore, these side edge regions 7c press tightly with the high tensile stress against the wearer's thighs and thereby to improve a stability of fit of the skin-facing sheet 7 to the wearer's skin in the wearer's crotch region.

As discussed on page 9, lines 15-20 of Appellants' specification, the skin-facing sheet 7 is formed with a bulging line 7e extending in the longitudinal direction in the vicinity of a longitudinal center line of the skin-facing sheet 7. The bulging line 7e is formed by folding overlappingly a part of the surface of the skin-facing sheet 7 with its surface facing the topsheet 4 and then bonding this part together.

As discussed on page 9, line 21 through page 10, line 7 of Appellants' specification, the skin-facing sheet 7 is folded back at least once along the transversely opposite side regions 1b defining the leg-holes 17 and the peripheral edge region of the at least one opening 8 so as to increase the basis weight and the tensile stress of the skin-facing sheet 7 in the transversely opposite side regions 1b and in the peripheral edge region of the at least one opening 8.

Shown in Fig. 6 and discussed on page 15, lines 9-18 of Appellants' specification is an embodiment of the invention in which the diaper is provided with leak-barrier sheets 15 formed of a fibrous nonwoven fabric being elastically stretchable in the transverse direction as well as in the

longitudinal direction. These leak-barrier sheets 15 are disposed between the topsheet 4 and the skin-facing sheet 7 so as to be spaced apart from each other in the transverse direction and to extend in the longitudinal direction. The skin-facing sheet 7 and the leak-barrier sheets 15 are attached under extension in the longitudinal direction to the skin-facing surface side of the diaper.

As shown in Figs.1 and 4, the transversely opposite side regions of the skin-facing sheet 7 defining the leg-holes 14 lie inwardly of the transversely opposite side regions of the base sheet 5.

ISSUE

Whether claims 1-4 and 7 are unpatentable over Tanji et al. in view of Sayama under 35 U.S.C. §103(a).

Whether claim 5 is unpatentable over Tanji et al. in view of Sayama and Mishima et al. under 35 U.S.C. §103(a).

GROUPING OF CLAIMS

Claims 1-3 stand or fall together.

Claim 4 requires that the skin-facing sheet is folded back at least once along the transversely opposite side regions defining the leg-holes. This limitation is not found in any of the other pending

claims and is a separate basis for patentability as argued below.

Claim 5 has been rejected upon a different combination of prior art teachings than the other pending claims and therefore stands or falls separately.

Claim 7 requires that the transversely opposite side regions of the skin-facing sheet defining the leg-holes lie inwardly of the transversely opposite side regions of the base sheet. This limitation is not found in any of the other pending claims and is a separate basis for patentability as argued below.

THE REFERENCES

The following references are relied upon by the examiner:

Tanji et al.	U.S. 5,304,159	April 19, 1994
Sayama ¹	EP 0 908 162	April 14, 1999
Mishima et al.	6,527,756	March 4, 2003

BRIEF DESCRIPTION OF THE REFERENCES

Tanji et al. discloses a disposable diaper that includes an opening 16 that is formed in a second topsheet 14 (above a first topsheet 11 that covers a liquid-absorbent core 13). The opening

16 is provided at laterally opposite sides with first and second flaps 17, 18, which are formed by folding the inner portions of the second topsheet 14. The flaps prevent excretion that misses the opening 16 from flowing over the top surface of the topsheet 14.

Sayama discloses a disposable diaper that includes a main body member 1 having a liquid-absorbent core 8 and a supplemental body member 2 having an absorbent pad member 36 with two openings 31 and 32 therein. The supplemental body member 2 is configured to lift upward from the main body member 1. A pair of side walls 41 extends between the supplemental body member 2 and the main body member 1 to define a cavity 5 that is adapted to receive excretion.

Mishima et al. discloses a disposable diaper that includes first and second liquid-barrier walls 5 and 6 and an optional third liquid-barrier wall 7 which rise over an underlying liquid-absorbent core. The liquid-barrier walls have elastic members along a top periphery that causes the walls to extend upward.

THE REJECTIONS

Claims 1- 4 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tanji et al. in view of Sayama.

¹ Corresponds to U.S. Patent No. 6,248,098

The examiner has relied upon Tanji et al. as disclosing “all aspects of the claimed invention with the exception of the transverse opposite outer terminal side edges of the skin-facing sheet being spaced apart from the transverse opposite outer terminal side edges of the topsheet.”

The examiner has relied upon Sayama as discloses a disposable undergarment, as shown in figure 1, comprising a liquid pervious topsheet 8 and an elastically stretchable skin-facing sheet 30.

The examiner states that that the skin-facing sheet 30 is bonded to the topsheet 6 inward of the transversely opposite outer terminal side edges of the topsheet 6, as shown in figure 1.

The examiner states that “Sayama discloses in column 3, lines 46-51, that this embodiment is equivalent to having the transversely opposite outer terminal side edges of the skin-facing sheet coextensive with the opposite outer terminal side edges of the topsheet.”

In rejecting claims 1-5 and 7 the examiner takes the position that:

It would have been obvious...to make the skin-facing sheet of Tanji have opposite outer terminal side edges spaced apart from the opposite outer terminal side edges of the topsheet, since the examiner takes official notice of the equivalence of these embodiments, and the selection of either embodiment would be within the level of ordinary skill in the art.

The examiner has relied upon Mishima et al. as disclosing a disposable undergarment that includes a pair of leak-barrier sheets 18, as shown in Fig. 6 that extend in a longitudinal direction along transversely opposite side regions of the garment.

The examiner takes the position that:

It would have been obvious...to construct the garment of Tanji et al, with leak-barrier sheets, as taught by Mishima, to prevent leakage while still allowing the garment to be breathable.

ARGUMENT

Appellant respectfully urges that claims 1-5 and 7 patentably distinguish from the applied reference combination as the claimed subject matter would not have been obvious within the meaning of 35 U.S.C. §103(a).

First, it is noted that the examiner's interpretation of (and hence reliance upon) Sayama is incorrect.

At column 3, lines 46-51 (cited by the examiner) Sayama teaches:

According to this embodiment, the respective lower portions 37 are bonded at least over their partial widths along their proximal edges 37A to the topsheet by means of hot melt adhesive 42. Obviously, it is also possible to bond the lower portions 37 to the topsheet 6 over their full widths.

This portion of Sayama does not teach or make any statement that "this embodiment is equivalent to having the transversely opposite outer terminal side edges of the skin-facing sheet coextensive with the opposite outer terminal side edges of the topsheet" as the examiner wrongly concludes.

The Board's attention is respectfully directed to Sayama's Figs. 2-4 which depict an embodiment in which "the respective lower portions 37 are bonded at least over their partial widths along their proximal edges 37A to the topsheet by means of hot melt adhesive 42."

The Board's attention is further direction to Sayama's Fig. 5 which depicts an embodiment in which "lower portions 37 [that are bonded] to the topsheet 6 over their full widths."

The examiner has interpreted Sayama's liquid-pervious topsheet 6 as reading on Appellants' claimed liquid pervious topsheet.

The examiner has interpreted Sayama's top wall 30 as reading on Appellants' claimed skin-facing sheet. However, it is believed that the examiner actually means to interpret Sayama's outer sheet 34 as reading on Appellants' claimed skin-facing sheet, since the top wall 30 is not actually a sheet that has transverse edges and it is not bonded to the topsheet as stated and relied upon by the examiner.

Assuming this latter interpretation is commensurate with the examiner's interpretation, it is pointed out that there are no embodiments in Sayama in which the outer topsheet 34 is bonded to the liquid pervious topsheet 6 as the examiner states with the exception of Fig. 5 in which the transversely opposite side edges of the outer sheet 34 are coextensive with the transversely opposite side edges of liquid previous topsheet 6.

However Appellants' independent claim 1 excludes the transverse opposite outer terminal side edges of the liquid-pervious topsheet and of the skin-facing sheet at the longitudinal central portion from being coextensive with one another.

So there is no teaching in Sayama which corresponds to Appellants' claimed structure.

It is further urged that the examiner's determination of "equivalents" is wrong.

The examiner attempts to merely rely upon the embodiment of Fig. 5 of Sayama as teaching

that having skin-facing sheet 30 bonded to the topsheet 6 inward of the transversely opposite outer terminal side edges of the topsheet 6, as shown in Figs. 1-4 is equivalent to having the transversely opposite outer terminal side edges of the skin-facing sheet coextensive with the opposite outer terminal side edges of the topsheet as shown in Fig. 5.

However the examiner overlooks the additional structural and functional difference between the embodiments of Figs. 1 and 5.

Figure 5 depicts an embodiment in which the outer sheet 34 extends beyond the outer peripheral edges of the liquid-absorbent core 8 and are bonded to the backsheet 7 with the elastic members 23 secured between the backsheet 7 and the outer sheet 34.

This entire structure has to be considered part of any "equivalents teaching" Sayama presents. That is the examiner cannot, isolate one structural feature of the purported "equivalents teaching" of Sayama to the exclusion of other structural elements.

It is moreover noted that from Figs. 4 and 5 it can be seen that the supplemental member 2 cannot raise above the main member 1 in the embodiment of Fig. 5 as high as it can in the embodiment of Fig. 4 due to the height difference in the side walls 41. Accordingly, the cavity's size and ability to contain excretion is not the same (equivalent) in the embodiments of Figs. 4 and 5.

Therefore it cannot be said that Sayama provides a teaching of equivalents, much less one that is applicable to Tanji et al.

The examiner has attempted to apply the teachings of Sayama to modify Tanji et al. to that the skin-facing sheet 14 of Tanji et al. will have opposite outer terminal side edges that are spaced

apart from the opposite outer terminal side edges of the topsheet 11.

The features of Sayama are configured to allow the supplemental member 2 to rise above the main member 1. That is, the features of the side walls 41 of Figs. 1-5 are configured to cooperate so that the side walls 41 form cavity 5 when the supplemental member 2 rises above the main member 1.

There is no reason or motivation to modify Tanji et al. in view of the teachings of Sayama due to the overall structural and functional differences between these references.

The only way one might consider combining the teachings of Tanji et al. and Sayama in the manner which the examiner has suggested would require ignoring the overall differences in function and structure between these references and then isolating only so much of portion of one embodiment of Sayama as directed by Appellants' own claim limitations and conclude that since Sayama teaches an equivalent embodiment any isolated portion thereof would be applicable to Tanji et al.

As noted above, if the features of Sayama as shown in Fig. 5, and not merely the isolated features relied upon by the examiner were incorporated into Tanji et al. the transverse opposite outer terminal side edges of the liquid-pervious topsheet 11 and of the skin-facing sheet 14 at the longitudinal central portion would be coextensive with one another - which is precluded by Appellants' claimed invention.

Appellants' claim 4 requires that the skin-facing sheet is folded back at least once along the transversely opposite side regions defining the leg-holes and the peripheral edge region of the at least

one opening so as to increase the basis weight and the tensile stress of the skin-facing sheet in the transversely opposite side regions and in the peripheral edge region of the at least one opening.

The examiner has stated that in Tanji et al. “the skin-facing sheet 14 is folded onto itself at transversely opposite side regions 18 and peripheral edge regions 19, as shown in figure 2.

It is submitted that the flaps 18 and 17 (having inner side edge 19) are not at “transversely opposite side regions defining the leg-holes,” because these flaps are positioned along opening 16 and not where they would be considered as “defining the leg-openings.”

Claim 7 requires that the transversely opposite side regions of the skin-facing sheet defining the leg-holes lie inwardly of the transversely opposite side regions of the base sheet.

The examiner states that in Tanji et al. the transversely opposite side regions 18 lie inwardly of the transversely opposite side regions of the base sheet 12, as shown in Fig. 2.

It is submitted that the flaps 18 are not at “transversely opposite side regions of said skin-facing sheet defining the leg-holes,” because these flaps are positioned along opening 16 and not where they would be considered as “defining the leg-openings.”

The examiner takes the position that:

It would have been obvious...to construct the garment of Tanji et al, with leak-barrier sheets, as taught by Mishima, to prevent leakage while still allowing the garment to be breathable.

Claim 5 requires that the substantially liquid-impervious leak-barrier sheets extend in the longitudinal direction along the transversely opposite side regions of the undergarment and are disposed between the base sheet and the skin-facing sheet, with each of the leak-barrier sheets having

longitudinally opposite fixed end regions joined to the longitudinally opposite end regions of the undergarment, a fixed bottom region joined to each of the transversely opposite side regions of the undergarment and a fixed top region joined to the surface of the skin-facing sheet opposite to each of the leak-barrier sheets.

The second topsheet 18 of Mishima et al. does not have all the structural features required by Appellants' substantially liquid-impervious leak-barrier sheets.

Moreover, the examiner's stated motivation "to prevent leakage while still allowing the garment to be breathable" is direction to the material that Mishima et al. teaches and not necessary to the structure.

CONCLUSION

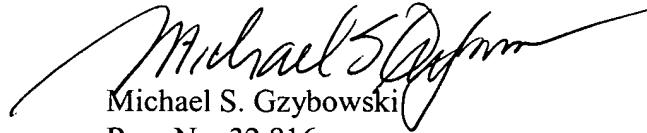
For the reasons advanced above, Appellant respectfully contends that the rejection of claims 1-4 and 7 as being obvious under 35 U.S.C. §103(a) over Tanji et al. in view of Sayama is improper because the examiner has not met the burden of establishing a *prima facie* case of obviousness.

Moreover, for the reasons advanced above, Appellant respectfully contends that the rejection of claims 5 as being obvious under 35 U.S.C. §103(a) over Tanji et al. in view of Sayama and Mishima et al. is improper because the examiner has not met the burden of establishing a *prima facie* case of obviousness.

Reversal of the rejections on appeal is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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121823.1

APPENDIX

CLAIMS ON APPEAL

Claim 1 (Previously presented): A disposable undergarment having longitudinally opposite end regions and transversely opposite side regions and comprising:

a liquid-impervious base sheet defining a non-skin-facing side;

a liquid-absorbent panel placed upon said base sheet;

a liquid-previous topsheet placed upon said liquid-absorbent panel and defining a skin-facing side opposed to said non-skin-facing side; and

an elastically stretchable and substantially liquid-impervious skin-facing sheet attached to said skin-facing side of said liquid-pervious topsheet so as to cover said liquid-absorbent panel,

said skin-facing sheet having:

fixed regions lying on said longitudinally opposite end regions and joined to said skin-facing side of said liquid-pervious topsheet;

a longitudinally middle region extending between said fixed regions and normally biased to be spaced apart upward from said liquid-absorbent panel as said undergarment is curved in a longitudinal direction thereof with the skin-facing side of said liquid-pervious topsheet inside;

a pair of transversely opposite side regions curving transversely inward on both sides of said longitudinally middle region so as to define a pair of leg-holes; and

at least one opening formed in said longitudinally middle region,

longitudinally opposite end regions of said liquid-pervious topsheet and said skin-facing sheet being substantially coextensive in a transverse direction,

a longitudinal central portion of the skin-facing sheet having a width that is smaller than a width of an underlying central portion of the liquid-pervious topsheet so that transverse opposite outer terminal side edges of the liquid-pervious topsheet and of said skin-facing sheet at the longitudinal central portion are not coextensive with one another in the transverse direction and the transverse opposite outer terminal side edges of the skin-facing sheet at the longitudinal central portion are spaced apart upward and inward from the transverse opposite outer terminal side edges of the liquid-pervious topsheet at the longitudinal central portion as said undergarment is curved in a longitudinal direction thereof with the skin-facing side of said liquid-pervious sheet inside,

a basis weight of said skin-facing sheet being higher in said transversely opposite side regions defining the leg-holes than a basis weight of a remaining region of said skin-facing sheet and a tensile stress of said skin-facing sheet is higher than a tensile stress of said transversely opposite side regions defining the leg-holes than in the remaining region.

Claim 2 (Previously presented): The disposable undergarment according to Claim 1, wherein a basis weight of said skin-facing sheet is higher in a peripheral edge region of said at least one opening than a basis weight of the remaining region and a tensile stress of said skin-facing sheet is higher in said peripheral edge region of said at least one opening than a tensile stress of the remaining region.

Claim 3 (Previously presented): The disposable undergarment according to Claim 1, wherein a bulging line extends on said skin-facing sheet in said longitudinal direction in a vicinity of a longitudinal center line of said skin-facing sheet and wherein said bulging line is formed by folding and overlapping a part of said skin-facing sheet and joining said part together.

Claim 4 (Previously presented): The disposable undergarment according to Claim 3, wherein said skin-facing sheet is folded back at least once along said transversely opposite side regions defining the leg-holes and said peripheral edge region of said at least one opening so as to increase the basis weight and the tensile stress of said skin-facing sheet in said transversely opposite side regions and in said peripheral edge region of said at least one opening.

Claim 5 (Previously presented): The disposable undergarment according to Claim 1, further including a pair of substantially liquid-impervious leak-barrier sheets extending in the longitudinal direction along said transversely opposite side regions of said undergarment and disposed between said base sheet and said skin-facing sheet, each of said leak-barrier sheets having longitudinally opposite fixed end regions joined to said longitudinally opposite end regions of said undergarment, a fixed bottom region joined to each of said transversely opposite side regions of said undergarment and a fixed top region joined to the surface of said skin-facing sheet opposite to each of the leak-barrier sheets.

Claim 6 (Previously presented²): A disposable undergarment having longitudinally opposite end regions and transversely opposite side regions and comprising:

- a liquid-impervious base sheet defining a non-skin-facing side;
- a liquid-absorbent panel placed upon said base sheet;
- a liquid-previous topsheet placed upon said liquid-absorbent panel and defining a skin-facing side opposed to said non-skin-facing side; and
- an elastically stretchable and substantially liquid-impervious skin-facing sheet attached to said skin-facing side of said liquid-pervious topsheet so as to cover said liquid-absorbent panel, said skin-facing sheet having:
 - fixed regions lying on said longitudinally opposite end regions and joined to said skin-facing side of said liquid-pervious topsheet;
 - a longitudinally middle region extending between said fixed regions and normally biased to be spaced apart upward from said liquid-absorbent panel as said undergarment is curved in a longitudinal direction thereof with the skin-facing side of said liquid-pervious topsheet inside;
 - a pair of transversely opposite side regions curving transversely inward on both sides of said longitudinally middle region so as to define a pair of leg-holes; and
 - at least one opening formed in said longitudinally middle region, longitudinally opposite end regions of said liquid-pervious topsheet and said skin-facing sheet being substantially coextensive in a transverse direction,

² Presented in August 4, 2004 Amendment After Final

a longitudinal central portion of the skin-facing sheet having a width that is smaller than a width of an underlying central portion of the liquid-pervious topsheet so that transverse opposite outer terminal side edges of the liquid-pervious topsheet and of said skin-facing sheet at the longitudinal central portion are not coextensive with one another in the transverse direction and the transverse opposite outer terminal side edges of the skin-facing sheet at the longitudinal central portion are spaced apart upward and inward from the transverse opposite outer terminal side edges of the liquid-pervious topsheet at the longitudinal central portion as said undergarment is curved in a longitudinal direction thereof with the skin-facing side of said liquid-pervious sheet inside,

a basis weight of said skin-facing sheet being higher in said transversely opposite side regions defining the leg-holes than a basis weight of a remaining region of said skin-facing sheet and a tensile stress of said skin-facing sheet is higher than a tensile stress of said transversely opposite side regions defining the leg-holes than in the remaining region, wherein said leak-barrier sheets are elastically stretchable and wherein said skin-facing sheet and said leak-barrier sheets are attached under tension in said longitudinal direction to said skin-facing side of said liquid-pervious topsheet.

Claim 7 (Previously presented): The disposable undergarment according to Claim 1, wherein said transversely opposite side regions of said skin-facing sheet defining the leg-holes lie inwardly of said transversely opposite side regions of said base sheet.